

Coverage in EPL Espertech mutant operators

There are 22 Esper EPL mutation operators in the replacement operators category. The RSC mutation operator was discarded because it replaces a keyword in the `select` clause (and the `select` clause is always run). So, there are 21 mutation operators in the replacement operator category in which coverage instrumentation could be added.

OPERATOR	DESCRIPTION
REPLACEMENT MUTATION	
RAF	Replaces an aggregate function (<code>max</code> , <code>min</code> , <code>avg</code> , <code>sum</code> , <code>count</code> , <code>median</code> , <code>stddev</code> , <code>avedev</code>) by another of the same kind. The <code>distinct</code> keyword could also be added
RAO	Replaces an arithmetic operator (<code>+</code> , <code>-</code> , <code>*</code> , <code>/</code> , <code>%</code>) by another of the same kind
RBR	Replaces each between-condition <code>a between x AND y</code> by <code>a > x AND a <= y</code> , <code>a >= x AND a < y</code> and its negative
RGR	Removes a group-by expression, and adds an appropriate aggregation function
RJR	Replaces the keywords <code>inner</code> , <code>left outer</code> , <code>right outer</code> , <code>full outer</code> , <code>outer</code> of the "join" clause by another of the same kind
RLM	Exchanges a wildcard character (<code>%</code> , <code>_</code>) in the "like" expression patterns
RLA	Adds a wildcard character (<code>%</code> , <code>_</code>) at the beginning and at the end of the "like" expression patterns
RAW	Removes a wildcard character (<code>%</code> , <code>_</code>) at the beginning of the "like" expression patterns
RBW	Removes a wildcard character (<code>%</code> , <code>_</code>) at the end of the "like" expression patterns
RLO	Replaces a logical operator (<code>and</code> , <code>or</code>) by another of the same kind
RNO	Replaces a number <code>e</code> by <code>e + 1</code> and <code>e - 1</code>
RNW	Exchanges the keyword <code>is null</code> and <code>is not null</code>
ROM	Exchanges or adds (if it does not exist) a keyword <code>asc</code> , <code>desc</code> in "order by" expressions
ROS	changes the order of the properties in the ''order by'' expressions
RRO	Replaces a relational operator (<code>=</code> , <code><></code> , <code><</code> , <code>></code> , <code><=</code> , <code>>=</code>) by another of the same kind
RRR ₁	Exchanges a single row function <code>{(cast, instanceof), (prevwindow, prevcount)}</code>
RRR ₂	Exchanges a single row function (<code>prev</code> , <code>prevtail</code> , <code>prior</code>)
RSR ₁	Replaces the keyword in type I subqueries (<code>all</code> , <code>any</code> , <code>some</code>) by another keyword of type I, type II or type III subqueries with the appropriate modifications
RSR ₂	Replaces the keyword in type II subqueries, (<code>in</code> , <code>not in</code>) by another of the keywords of type II, type I or type III subqueries with the appropriate modifications
RSR ₃	Exchanges, in type III subqueries, the keyword (<code>exist</code> , <code>not exist</code>)
RTU	Replaces one time unit (<code>milliseconds</code> , <code>seconds</code> , <code>minutes</code> , <code>hours</code> , <code>days</code>) by another of the same kind